

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,857,461 B2
DATED : February 22, 2005
INVENTOR(S) : Dieter Girlich & Juergen Schaedlich-Stubenrauch

Page 1 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

The title page, should be deleted and substitute therefor the attached title page as shown on the attached pages.

Delete drawing sheets 1-2, and substitute therefore the drawing sheets, consisting of Figs 1-8, as shown on the attached pages

Signed and Sealed this

Twelfth Day of July, 2005

A handwritten signature in black ink, appearing to read "Jon W. Dudas". The signature is stylized with a large, sweeping initial "J" and a cursive "Dudas".

JON W. DUDAS
Director of the United States Patent and Trademark Office

(12) **United States Patent**
Girlich et al.

(10) **Patent No.:** US 6,857,461 B2
 (45) **Date of Patent:** Feb. 22, 2005

(54) **METHOD AND DEVICE FOR THE
 PRODUCTION OF RETICULAR
 STRUCTURES**

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• cited by examiner

(*) **Notice:** Subject to any disclaimer, the term of this
 patent is extended or adjusted under 35
 U.S.C. 154(b) by 126 days.

Primary Examiner—M. Alexandra Elve

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 Thomas L. Bohan

(21) **Appl. No.:** 10/079,331

(22) **Filed:** Feb. 20, 2002

(65) **Prior Publication Data**

US 2002/0088598 A1 Jul. 11, 2002

Related U.S. Application Data

(63) **Continuation of application No. PCT/DE00/02597, filed on**
 Aug. 4, 2000.

(30) **Foreign Application Priority Data**

Aug. 20, 1999 (DE) 199 39 155

(51) **Int. Cl.**⁷ B22C 9/04

(52) **U.S. Cl.** 164/34; 164/35; 164/45

(58) **Field of Search** 164/34, 35, 45,
 164/235, 246

(56) **References Cited**

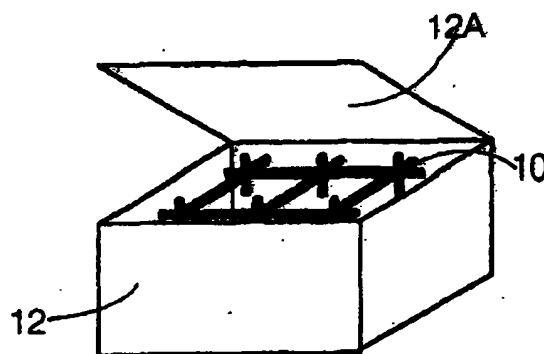
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(57) **ABSTRACT**

A method of producing reticular structures, particularly
 metallic reticular structures, as well as a device suitable for
 the production thereof. The method and device enable
 continuous and/or automated production of such structures,
 and particularly, large-scale automated production of large-
 dimensioned reticular structures. A reticulated foam pre-
 structure is placed into a first container and infiltrated with
 a refractory material. After solidification, the mold formed
 by the refractory material is removed from the first container
 and the foam pre-structure stripped from the mold. The mold
 is then pre-heated and placed into a second container and
 infiltrated with a molten substance that forms the reticular
 structure when solidified. The filled mold may be covered
 with a solid jacket as a means of controlling the rate and
 progression of solidification of the molten substance to form
 a fine-grained, bubble-free structure.

10 Claims, 2 Drawing Sheets



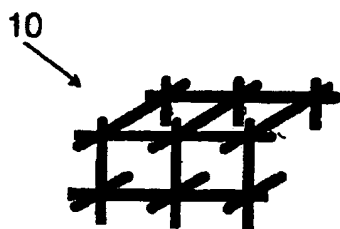


FIG. 1

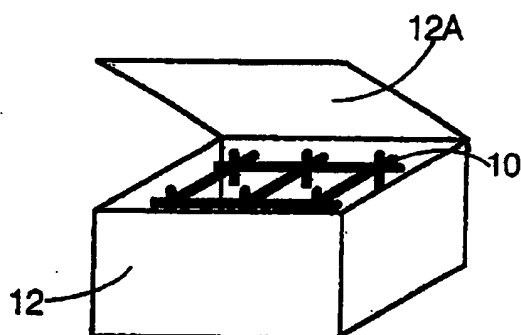


FIG. 2

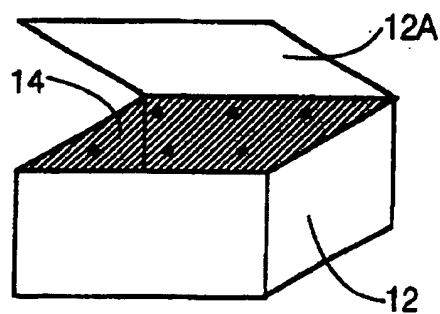


FIG. 3

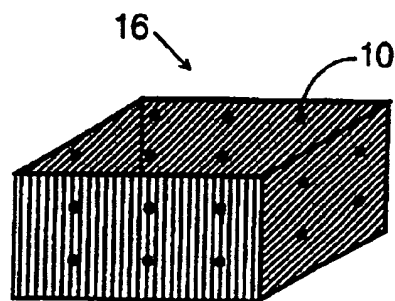


FIG. 4

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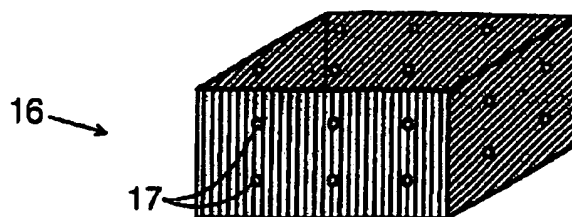


FIG. 5

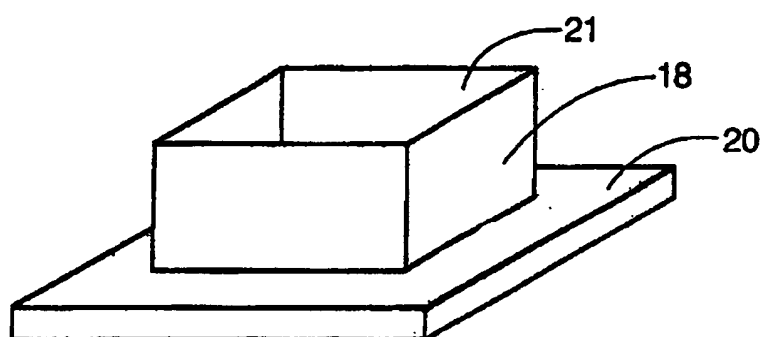


FIG. 6

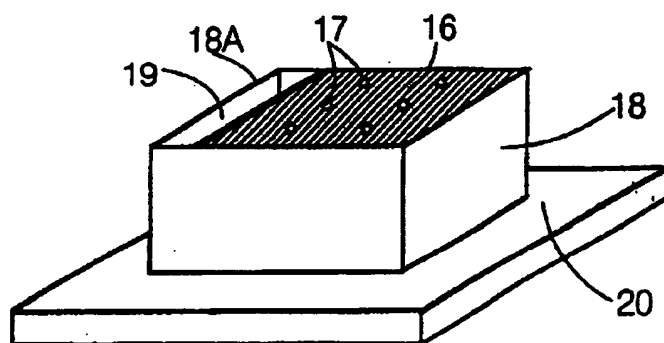


FIG. 7

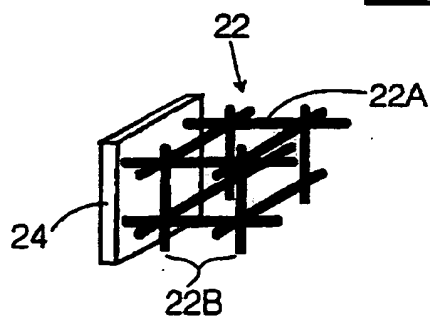


FIG. 8